# Carl Joseph Ancheta

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## EDUCATION

#### University of Toronto

Sep 2021 - Apr 2026 (expected)

Bachelor of Applied Science in Engineering Science (Machine Intelligence Option)

Toronto. ON

• Relevant Courses: Computer Algorithms & Data Structures, Engineering Design I, II, III, Digital & Computer Systems, Probability & Statistics, Intro to Machine Learning, Matrix Algebra & Optimization, Operating Systems, Neural Networks, Language & Meaning

## SKILLS

Computer Programming: Python (NumPY, Tensorflow, Pandas, Jax), Groovy, SQL, C, MATLAB, JMeter Graphic Design: Figma, Adobe Photoshop, Adobe InDesign, Adobe Illustrator, Adobe Lightroom Soft Skills: Team Leadership, Project Management, Communication, Organization and Time Management

## TECHNICAL EXPERIENCE

#### Performance Test Engineer Intern | SOTI Inc.

Sep 2024 – Aug 2025

- Rapidly analyze JMeter Performance test script functions and responses to identify and resolve bugs, unblocking critical performance testing efforts
- Requested, analyzed, and interpreted customer data to inform the design of a testing environment preparation script that simulates real-world usage patterns that can replace 5+ separate environment preparation scripts
- Designed and implemented sanity checks for scripts to validate test suite integrity, reducing bug incidence during high-stakes regression testing phases

## LSTM Personality Identification | ECE324 (Neural Networks)

Jan – Apr 2024

- Successfully trained a stacked-LSTM model to sort characters by personality traits (based on Harry Potter Hogwarts Houses) using a highly dynamic dialogue-based dataset with >80% validation accuracy
- Processed dialogue datasets (removing extra characters, converting text to lowercase, tokenization, word embedding, etc.) using Pandas to yield better results
- Wrote a report presenting the project idea, a literature review of relevant work, and the results of our project

#### Neural Networks | ECE421 (Introduction to Machine Learning)

Nov – Dec 2023

- Implemented a Convolutional Neural Network to classify images in the CIFA10 and MNIST datasets
- Implemented a Recurrent Neural Network to classify movie reviews as positive or negative from an IMDB dataset
- Utilized JAX NumPY to implement calculations and Objax to implement neural network layers

## Waste Management in Accra, Ghana | ESC204 (Engineering Design III)

Jan – Apr 2023

- Designed and conceptually prototyped a Manual Trash Compactor for informal Ghanaian waste collection vehicles
- Designed a 3D-printed shut-off valve in Fusion 360 to use in the prototype hydraulics system
- · Performed stakeholder and value analysis and contextual research to inform design decisions

## Improved Payload Gondola for Stratospheric Balloons | ESC102 (Engineering Design II) Jan – Apr 2022

- Successfully designed a Payload Gondola for Stratospheric Balloons to be reusable and larger than current designs
- Created a MATLAB script to calculate stresses on a cylindrical-shaped gondola design concept
- Engaged with the Canadian Space Agency's STRATOS team to seek feedback and validate design decisions

## Extracurricular Experience

## Vice-Chair Marketing | University of Toronto Engineering Orientation Committee

Mar 2025 – Present

- Led 15+ member marketing team of graphic designers, photographers, and web developers
- Developed and led themed branding direction for current year and maintained Orientation's unique branding style throughout documents, social media posts, and website
- Helped facilitate leadership training for over 500 orientation student leaders and volunteers virtually and in person
- Provided Orientation Committee members with graphics, photography, and video edits as requested

## Skulebook Editor | The University of Toronto Engineering Society

May 2023 - May 2024

- Successfully planned and oversaw the creation of the annual 180-page yearbook
- Delegated asset design and page layout tasks to graphics team and provided feedback to maintain cohesive design
- Delegated over 35 photoshoots, and photo collection tasks to photography team to fill yearbook with content
- Coordinated content from over 120 community members, seamlessly integrating with designs in Adobe InDesign